Environmental Programs
Brownfields

State Revolving Fund Loan Program
an Indiana Finance Authority Environmental Program

100 North Senate Avenue, Room 1275
Indianapolis, Indiana 46204
www.srf.in.gov

MEMORANDUM

TO: Project File, City of Fort Wayne, Combined Sewer Pump Station and Screenings Building as well as Other Improvements, SRF Project # WW11 17 01 05

FROM: Jack Fisher

DATE: November 4, 2011

RE: Green Project Reserve (GPR), Business Case

Summary:

- This project includes improvements to the Combined Sewer Pump Station (CSPS) that will increase the firm pumping capacity from 160 million gallons per day (MGD) to 350 MGD. The proposed project will be key for the city in successfully completing their Long Term Control Plan. The project includes modifying the existing wet well, adding two 95 MGD pumps and two 10 MGD pumps, reconditioning two 160 MGD pumps, constructing a new screening structure and new ancillary facilities (i.e., electrical building and storage building). The "green" portion of the project consists of the variable frequency drives (VFDs) on the new and reconditioned pumps to provide energy efficiency.

- In addition, the project includes rehabilitating approximately 162 feet of 6-inch sewer laterals, 21,050 feet of 8-inch sewer pipe, 15,300 feet of 10-inch sewer pipe, 24,900 feet of 12-inch sewer pipe, and 6,700 feet of 15-inch sewer pipe.

- Estimated State Revolving Fund Loan Amount is $33,422,750.

- Estimated energy efficiency savings (Green) portion of the loan is $4,635,654 for construction costs pertaining to the CSPS pumps, motors and VFDs; and $2,096,612 for construction costs pertaining to the sewer rehabilitation work. Total GPR cost of $6,732,266 is 20.1% of the total project costs. No planning and design costs since they were done by the city.

Conclusions

- The installation of smaller pumps and VFDs will allow the system to realize a 40% reduction in energy usage and therefore be considered categorical with greater than 20% energy savings.

- The proposed sewer rehabilitation project will result in an annual energy cost savings of $93,951 associated with wastewater treatment. This project will have a 59 year payback with the life expectancy of the sewer improvements being 70 plus years.